

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions in the application:

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~~Claims 1-23 (withdrawn)~~ ✓

~~Claims 24-30 (canceled)~~ ✓

Claim 31 (new): An article having first and second exterior surface regions defined by first and second homogeneous layers, respectively, each homogeneous layer comprising a carbide of at least one element selected from the group comprising B, Si, Ti, V, Cr, Zr, Nb, Mo, Hf, Ta and W and the element carbon, the first homogeneous layer having a relatively lower proportion of carbon and the second homogeneous layer having a relatively higher proportion of carbon in comparison to the first homogeneous layer, the second exterior surface region having a lower coefficient of friction than the first exterior surface region.

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Claim 32 (new): An article having first and second different exterior surface regions, the first exterior surface region being defined by a first homogeneous layer being formed on the first surface region and a second homogeneous layer being formed on said second surface region, said first homogeneous layer and said second homogeneous layer each consisting of a carbide of one or more elements of the group comprising B, Si, Ti, V, Cr, Zr, Nb, Mo, Hf, Ta and W together with the element carbon, there being a relatively lower proportion of carbon in said first homogeneous layer than in said second homogeneous layer and in an amount selected to achieve a relatively high coefficient of friction at said first exterior surface region and a relatively higher proportion of carbon in said second homogeneous layer in comparison to said first homogeneous layer and in an amount selected to achieve a relatively low coefficient of friction at said second exterior surface region.

Claim 33 (new): An article in accordance with claim 32 wherein said one or more elements is boron, said first homogeneous layer on said first surface region containing at least approximately 80 at% boron and a remainder containing 20 at% of carbon and incorporated hydrogen and unavoidable contaminants and said second homogeneous layer on said second surface region containing approximately 55 at% boron and a remainder containing 45 at% of carbon and incorporated hydrogen and unavoidable contaminants.

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Claim 34 (new): An article in accordance with claim 32 wherein said one or more elements is tungsten, said first homogeneous layer on said first surface region containing at least approximately 50 at% tungsten and a remainder containing 50 at% of carbon and incorporated hydrogen and unavoidable contaminants and said second homogeneous layer on said second surface region containing approximately 15 at% tungsten and a remainder containing 85 at% of carbon and incorporated hydrogen and unavoidable contaminants.

Claim 35 (new): An article in accordance with claim 32 including a bonding layer formed on the said first and second surface regions beneath said respective first and second homogeneous layers.

Claim 36 (new): An article in accordance with claim 35, wherein the bonding layer has a thickness in the range from about 0.1 μm to about 1 μm on said first and second surface regions.

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Claim 37 (new): An article method in accordance with claim 32, wherein the first and second homogeneous layers have a thickness on said first and second surface regions between about 1 μm and 5 μm .

Claim 38 (new): An article in accordance with claim 32, wherein the second homogeneous layer is a multi-layer structure comprising alternate layers of a carbide of one or more of the said elements and carbon, a layer thickness of each carbon layer in the alternate layers being in the range between approximately 1 nm and approximately 20 nm.

Claim 39 (new): An article in accordance with claim 38, wherein a thickness of each carbon layer is in the range from about 2 nm to 4 nm.

Claim 40 (new): An article in accordance with claim 38, wherein the alternate layers comprise a topmost layer of carbon.

Claim 41 (new): An article in accordance with claim 38, including a plurality of carbon layers, and wherein the topmost layer of carbon is thicker than other layers of carbon.

Claim 42 (new): An article in accordance with claim 41, wherein the topmost layer of carbon has a thickness of approximately 500 nm.

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~~Claim 43 (new): An article in accordance with claim 38, wherein the carbon of the carbon layers has predominantly sp₃ bonds.~~

~~Claim 44 (new): An article in accordance with claim 38, wherein the carbide layers each have a thickness in the range between about 1 and 3 nm.~~

~~Claim 45 (new): An article in accordance with claim 44, wherein the carbide layers each have a thickness of about 2 nm.~~

~~Claim 46 (new): An article in accordance with claim 35, wherein the bonding layer is a layer selected from the group comprising Cr and Ti.~~

~~Claim 47 (new): An article in accordance with claim 35, wherein the first and second homogeneous layers have a thickness on said first and second surface regions, including a thickness of said bonding layer, between about 1 μm and 5 μm.~~